

**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

**1-8. (Cancelled)**

**9. (Currently Amended)** A method for producing a ~~small~~ group subset of maladapted non-human ~~animals~~ mammals characterized by post-traumatic stress disorder (PTSD)-like behavior from a ~~larger~~ group of ~~animals~~ non-human mammals by behavioral conditioning, the method comprising: (a) determining an individual baseline behavioral level and at least one biological parameter selected from the group consisting of a Wolframin level and a Sigma 1 receptor level for each one of an individual ~~animal~~ non-human mammal in the ~~larger~~ group after a period of habituation to a defined set of conditions; (b) exposing each one of said individual ~~animal~~ non-human mammal in the ~~larger~~ group to a trauma event and further determining an individual posttraumatic event behavioral level and the level of said at least one biological parameter for each of said individual ~~animal~~ non-human mammal; (c) re-exposing each of said individual ~~animal~~ non-human mammal in the ~~larger~~ group to a trauma related event and further determining an individual post trauma related event behavioral level and the level of said at least one biological parameter for each individual ~~animal~~ non-

human mammal; (d) evaluating said individual post trauma related event behavioral level and the level of said at least one biological parameter for each individual ~~animal~~ non-human mammal with respect to at least one baseline value according to a predetermined rule in order to determine which of said individual ~~animal~~ non-human mammal in the ~~larger~~ group belong to the ~~small~~ group subset of maladapted ~~animal~~ non-human mammals characterized by PTSD-like behavior.

**10. (Currently Amended)** The method of claim 29, wherein said determining an individual baseline behavioral level, said further determining an individual post traumatic event behavioral level, further determining an individual post trauma related event behavioral level are each independently accomplished by analysis of videotapes of a defined behavior of said individual ~~animal~~ non-human mammal under controlled conditions.

**11-12. (Cancelled)**

**13. (Currently Amended)** The method of claim 10, further comprising at least one repetition of said re-exposing each of said individual ~~animal~~ non-human mammal in the ~~larger~~ group to a trauma related event and of said further determining an individual post trauma related event behavioral level for each individual ~~animal~~ non-human mammal.

**14-15. (Cancelled)**

**16. (Currently Amended)** A method for screening a candidate compound for PTSD treatment, the method comprising: (a) producing a ~~small-group~~ subset of individually evaluated maladapted non-human ~~animals~~ mammals characterized by PTSD like behavior from a ~~larger~~ group of ~~animals~~ non-human mammals wherein an individual in said ~~small-group~~ subset is correlatable to a corresponding individual behavioral profile; (b) identifying each of said individuals in said ~~small-group~~ subset of individually evaluated maladapted non-human ~~animals~~ mammals characterized by PTSD like behavior; (c) administering a candidate compound to at least a portion of said individuals in said ~~small-group~~ subset; (d) determining an effect of said candidate compound on each of said individuals in said at least a portion of said ~~small-group~~ subset with respect to said corresponding individual behavioral profile.

**17. (Currently Amended)** The method of claim 16, further comprising measuring at least one biological parameter in each of said individually evaluated maladapted non-human ~~animals~~ mammals.

**18. (Original)** The method of claim 17, wherein said at least one biological parameter is selected from the group consisting of a Wolframin level and a Sigma 1 receptor level

**19. (Currently Amended)** The method of claim 16, further comprising applying an accepted statistical analysis to a pool of data pertaining to said effect of said candidate compound on each

of said individuals in said at least a portion of said ~~small~~  
~~group~~ subset with respect to said corresponding individual  
behavioral profile.

**20. (Currently Amended)** The method of claim 16, further  
comprising administering a control compound to at least a portion  
of said individuals in said ~~small-group~~ subset.

**21. (Original)** The method of claim 20, wherein said  
control compound includes at least one compound selected from the  
group consisting of a negative control compound and a compound  
with a previously characterized efficacy in treating PTSD.

**22. (Original)** The method of claim 16, wherein the  
method is performed as iterated and wherein the treatment is a  
therapeutic treatment.

**23. (Original)** The method of claim 16, wherein the  
treatment is a prophylactic treatment.

**24. (Currently Amended)** A method for screening a  
candidate compound for prophylactic PTSD treatment, the method  
comprising: (a) establishing a method for producing a ~~small-group~~  
subset of maladapted non-human ~~animals~~ mammals characterized by  
PTSD like behavior from a ~~large~~ group of ~~animals~~ non-human  
mammals by behavioral conditioning; (b) employing statistical  
methods to determine a confidence interval for a relative size of  
said ~~small-group~~ subset of maladapted non-human ~~animals~~ mammals  
characterized by PTSD like behavior with respect to a size of

said ~~large~~ group of ~~animals~~ non-human mammals; (c) administering the candidate compound to a subsequent ~~large~~ group of animals subjected to said method for producing a subsequent ~~small-group~~ subset of maladapted non-human ~~animals~~ mammals characterized by PTSD like behavior; and (d) determining whether a relative size of said subsequent ~~small-group~~ subset of maladapted non-human ~~animals~~ mammals characterized by PTSD like behavior with respect to a size of said subsequent ~~large~~ group of ~~animals~~ non-human mammals falls within said confidence interval.

**25. (Currently Amended)** A method for screening a candidate compound for PTSD treatment, the method comprising: (a) establishing a method for producing a ~~small-group~~ subset of maladapted PTSD like non-human ~~animals~~ mammals from a ~~large~~ group of ~~animals~~ non-human mammals by behavioral conditioning; (b) measuring at least one biological parameter for each ~~animal~~ non-human mammal in said ~~small-group~~ subset of maladapted PTSD like non-human ~~animals~~ non-human mammals; (c) employing statistical methods to: (i) determine a first confidence interval for a relative size of said ~~small-group~~ subset of maladapted PTSD like non-human ~~animals~~ non-human mammals with respect to a size of said ~~large~~ group of ~~animals~~ non-human mammals; (ii) determine a second confidence interval for said at least one biological parameter for said ~~small-group~~ subset of maladapted PTSD like non-human ~~animals~~ mammals; (d) administering the candidate

compound to a subsequent ~~large~~ group of ~~animals~~ non-human mammals subjected to said method for producing a subsequent ~~small-group~~ subset of maladapted non-human ~~animals~~ mammals characterized by PTSD like behavior; and (e) determining whether a relative size of a subset of said subsequent ~~large~~ group of ~~animals~~ non-human mammals characterized by a value for said at least one biological parameter which falls within said second confidence interval falls within said first confidence interval; and (f) concluding that: (i) the candidate compound is effective in ameliorating PTSD if said relative size of said subset of said subsequent ~~large~~ group of ~~animals~~ non-human mammals characterized by a value for said at least one biological parameter which falls within said second confidence interval is below a lower bound of said first confidence interval; or (ii) the candidate compound is not effective in ameliorating PTSD if said relative size of said subset of said subsequent ~~large~~ group of ~~animals~~ non-human mammals characterized by a value for said at least one biological parameter which falls within said second confidence interval is above a lower bound of said first confidence interval.

**26. (Original)** The method of claim 25, wherein said at least one biological parameter includes at least one item selected from the group consisting of a Wolframin level and a Sigma 1 receptor level.

**27. (Original)** A method for screening a candidate compound for PTSD treatment, the method comprising employing known statistical methods to perform an analysis which is logically similar to the method of claim 25.

**28. (Cancelled)**

**29. (Currently Amended)** A method for producing a ~~small~~ group subset of maladapted non-human animals characterized by post-traumatic stress disorder (PTSD)-like behavior from a ~~larger~~ group of ~~animals~~ non-human mammals by behavioral conditioning, the method comprising: (a) determining an individual baseline behavioral level for each one of an individual ~~animal~~ non-human mammal in the ~~larger~~ group after a period of habituation to a defined set of conditions; (b) exposing each one of said individual ~~animal~~ non-human mammal in the ~~larger~~ group to a trauma event at least 21 days following the start of habituation and further determining an individual posttraumatic event behavioral level for each of said individual ~~animal~~ non-human mammal; (c) re-exposing each of said individual ~~animal~~ non-human mammal in the ~~larger~~ group to a trauma related event at least 7 days following said exposure to a trauma event and further determining an individual post trauma related event behavioral level for each individual ~~animal~~ non-human mammal; (d) evaluating said individual post trauma related event behavioral level for each individual animal with respect to at least one baseline

value according to a predetermined rule in order to determine which of said individual ~~animal~~ non-human mammal in the ~~larger~~ group belong to the ~~small-group~~ subset of maladapted ~~animals~~ non-human mammals characterized by PTSD-like behavior.

**30 (Currently Amended)** The method of claim 13, wherein said at least one repetition of said re-exposing of said individual ~~animal~~ non-human mammal to a trauma related event occurs between 14 days and 90 days following said exposing to a trauma event.

**31 (Currently Amended)** The method of claim 29, wherein said exposing of (b) of each one of said individual ~~animal~~ non-human mammal to a trauma event occurs 23 days following the start of habituation and said re-exposing of (c) of each of said individual ~~animal~~ non-human mammal to a trauma related event occurs 7 days following said exposure to a trauma event.

**32 (Currently Amended)** The method of claim 30, wherein said at least one repetition of said re-exposing of said individual ~~animal~~ non-human mammal to a trauma related event occurs 23 days following said exposing to a trauma event.